BEHAVIOUR

Healthcare-seeking behaviours for sexually transmitted infections among women attending the National Institute of Dermatology and Venereology in Vietnam

Hien Thi Thu Do, Anna Ziersch, Gavin Hart

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See end of article for authors' affiliations

Correspondence to: Dr H T T Do, National Institute of Dermatology and Venereology, 135 Hong Mai Street, Hai Ba Trung District, Ha Noi, Vietnam; dothuhien1975@vnn.vn

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Objectives: To investigate the determinants of delay in seeking healthcare for sexually transmitted infections (STIs) among Vietnamese women attending the National Institute of Dermatology and Venereology (NIDV), through assessing to what extent women's sociodemographic backgrounds and their knowledge, attitudes and practices (KAP) relating to STIs/STI prevention influence their delay in seeking healthcare for STIs.
Methods: A face-to-face semistructured interview of 60 women over 18 years old attending the NIDV, who were diagnosed with an STI by clinicians from the NIDV and volunteered to participate in the study. The relationship between demographic and KAP variables and delay (7 days or more between onset of symptoms and seeking care) and the interval of delay were assessed using χ^2, Fisher's exact, Mann–Whitney U and Kruskal–Wallis tests.
Results : Of those women reporting delay before first seeking care, 82% delayed by $\geqslant$7 days. Women with lower education and from rural or remote areas waited significantly longer before first seeking care than those with higher education and from urban areas. Women who delayed in seeking care knew significantly less routes of STI transmission and engaged significantly more in sex while having symptoms than women who did not delay in seeking care. No relationships existed between delay behaviours and women's income, age or attitudes towards STIs/STI prevention.
Conclusions: Early healthcare-seeking behaviour for STIs could be facilitated through improving women's basic knowledge regarding STIs, changing their sexual behaviour and creating a social support environment for early care-seeking.

Sexually transmitted infections (STIs) have long been recognised as a major public health problem because of their high prevalence and contribution to morbidity and mortality.[1] Although most STIs are relatively easy to cure, many people who have an STI, especially women, delay in seeking appropriate care. An understanding of healthcare-seeking behaviours is therefore important if STI control programmes are to be effective.

Vietnam is a developing country situated in South-East Asia, with around 100 000 new cases of STIs annually.[2] However, about 80–90% of patients with STI go to pharmacies and private clinics, and are thus left out of reports.[3] The fact that the organisation of STI clinical services in Vietnam is complex is a cause of confusion for patients seeking care.[4] Furthermore, data on the prevalence of, and the determinants of, the healthcare-seeking behaviours for STIs in Vietnam are scarce, and are mostly based on reports from non-comprehensive national STI surveillance and a small number of unpublished reports.[5]

Research on healthcare-seeking behaviours for STIs suggests that there is a significant proportion of people with STIs who delay (most commonly considered to be waiting for >7 days from the onset of symptoms) in seeking care. For example, this proportion was 46% among women in Kenya,[6] 34% among women in the USA,[7] 59% among both men and women in the Netherlands,[8] and 41–44% among both men and women in South Africa.[9 10]

Research also suggests that there is an association between delay behaviours and patients' demographic characteristics. For example, a study in Netherlands indicated that women with middle educational background often delayed longer than those with high educational background, and that women living in a village were more likely to delay, and delayed longer, than those living in the cities.[8] A study in the USA found that lower household incomes were associated with prolonged care-seeking intervals.[7]

Furthermore, research indicates that knowledge, attitudes and sexual practices (KAP) relating to STIs are potentially associated with delay in seeking care for STIs. For example, a number of studies in South Africa found that women who delayed tended to be those who held misconceptions regarding the cause of STIs, and perceived STIs not to be serious. [9 10] In the USA and the Netherlands, research suggested that embarrassment or stigma often resulted in prolonged care-seeking intervals.[7 8] Studies in Kenya and South Africa have found that women who continued to have sex while having symptoms were more likely to delay, and delayed longer than other women. [10 11]

This study examines the determinants of healthcare-seeking behaviours for STIs among Vietnamese women attending the National Institute of Dermatology and Venereology (NIDV). We aim to examine to what extent women's sociodemographic backgrounds, their KAP relating to STIs and their awareness of availability of STI-specific health services influence their delay in seeking healthcare for STIs.

METHODOLOGY

Participants

Participants of this study were 60 women over 18 years of age attending the NIDV for STI checkups, who were diagnosed with an STI by the clinicians from the NIDV, the most specialised STI

Abbreviations: KAP, knowledge, attitudes and practice; NIDV, National Institute of Dermatology and Venereology; STI, sexually transmitted infection; VNA, Vietnam dong

service of the country, between 15 July and 30 August 2005. Since STIs are a very sensitive issue, especially in the context of Vietnam, an Asian country with traditional values, the sample for study could not be selected randomly. Owing to ethical considerations, only women >18 years of age were selected. All women >18 years attending the NIDV for STI checkups, who were diagnosed with an STI by the NIDV during the study period (n = 106), were offered the chance to participate in the study by the clinicians. Those who were interested in the study (n = 61) were referred to the interview room, where the interviewer explained the details of the study procedures. Only one woman refused at this point because she was concerned that, despite assurances, her information may not be treated confidentially. An initial sample size calculation (estimating approximately 100 women with STIs attending the NIDV during data collection, a 95% confidence level and a confidence interval (CI) of 5 indicated that a sample of 80 was required. However, given the sensitive nature of the study, it was difficult to recruit this number of women. Therefore, the CI was relaxed to 8, giving a sample size calculation of 60. The implications of the sample size are discussed below.

Data collection

This study employed face-to-face interviews, using a semi-structured questionnaire. The questionnaire consisted of 45 items covering knowledge of STI names, symptoms and transmission, attitudes towards STIs, sexual practices to prevent STIs, knowledge of available services for STI treatment, healthcare-seeking behaviours for STIs and sociodemographic background.

Ethical approval from the Social and Behavioural Research Ethics Committee, Flinders University (South Australia, Australia) was granted for this study. Approval was also obtained from the director of the NIDV, where the data collection was conducted.

Data analysis

The SPSS 12.0 computer software was used for statistical analysis. Non-parametric techniques were employed for analysis, owing to the small sample size and distribution of some of the variables. Tests used were χ^2 test for independence, Fisher's exact test (where χ^2 test required that cell counts were not met), Mann–Whitney U test and Kruskal–Wallis test. The variables used in the analysis are described below.

Demographic variables

Four demographic variables were considered. Age was grouped into three ranges: 18–24, 25–34 and ⩾35 years, on the basis of the physiology of women regarding sexual activity, and also to provide a reasonable spread across the three groups to enable statistical tests. Education was grouped into three levels: primary school or less, secondary school to college, and tertiary. Living area was considered as urban and rural or remote. Income was measured by monthly income ranges in Vietnam dong (VND), and grouped into three categories: ⩽350 000 VND (⩽US$21.841, £11.248, €16.405), 351 000–1 000 000 VND (US$21.903–62.402, £11.277–32.129, €16.449–46.865) and >1 000 000 VND (>US$62.402, £32.129, €46.865), which corresponded to lower, medium and higher incomes in the Vietnamese context, respectively, and also to provide a reasonable spread across the three groups to enable statistical tests.

STI knowledge

Knowledge of STIs was assessed using the number of correct STI names, number of correct STI symptoms and number of correct STI transmission routes reported by participants. Knowledge of STI services was measured using the number of reported qualified places to seek care for STIs.

STI attitudes

Attitudes towards STIs and STI prevention were measured using a six item attitudes scale adapted from the STD attitudes scale developed by Yarber *et al*[12] (Cronbach's α coefficient 0.644). The scale included items such as ''I would be embarrassed to discuss STIs with my partner'' and ''I would feel ashamed if my acquaintances found out about my help seeking for STIs''. Each item had an agree, neutral and disagree option scored 1, 2 and 3 respectively. (Pilot testing indicated that respondents were not able to distinguish clearly between the more traditionally used ''agree'' and ''strongly disagree'' and ''disagree'' and ''strongly disagree''; so these were both collapsed in the final questionnaire). Scores were reverse coded where relevant. Total scores were summed and ranged from 6 to 18, with higher scores indicating more positive attitudes towards STIs and STI prevention.

STI practices

STI practices were measured on the basis of whether or not participants had had sex while having symptoms.

Delay in seeking healthcare

Delay in seeking healthcare was measured in two ways. The first was by assessing whether participants had delayed in seeking care or not, the delay being defined as waiting for 7 days or more from the onset of symptoms before attendance at the first STI provider. Waiting for >7 days before seeking care is the most common definition of delay found in the literature.[6–10] The second was based on the interval of delay, defined as the number of days from the onset of symptoms until going to the first STI provider.

RESULTS

Participant characteristics

Of the 106 women who were asked to participate in the study, 61 women were interested in the study and were referred to the interview room, where the study procedure was explained in detail to them. Finally, 60 women agreed to answer the interview. The mean age of all participants was 29 years (range 18–48 years: median = 27; 18–24 years: 38%; 25–34 years: 42%; 35–48 years: 20%). In total, 65% of the participants came from rural areas, 30% from urban areas and 5% from remote area. In all, 13% of the participants had not completed primary school, 69% had completed from secondary school to college (junior secondary to senior secondary: 55%, intermediate college to junior college: 14%), and 18% had achieved a university degree. The distribution of monthly income was: ⩽350 000 VND (⩽US$21.841, £11.248, €16.405): 25%; 351 000–1 000 000 VND ((US$21.903–62.402, £11.277–32.129, €16.449–46.865)): 57%; >1 000 000 VND (>US$62.402, 32.129, €46.865)): 18%.

Delay in seeking care

Of the 60 women who were interviewed, 17 (28%) were referred through partner notification and had no symptoms, and thus could not report on time of onset of symptoms. These women were excluded from further analysis. Among the remaining 43 women, only 18% went to the first STI provider earlier than 7 days. The majority (82%) delayed in seeking care (40% waited from 1 to 4 weeks, and 42% waited for >1 month). The time from onset of symptoms until going to the first STI provider ranged from 1 to 365 days (mean = 54 and median = 30).

Demographic differences in delay behaviour

The delay behaviours (both whether women delayed in seeking care or not, and the interval of delay) were examined in relation to the demographic variables of income, education, living area and age.

Fisher's exact tests indicated that there were no significant relationships between delay in seeking care and education, living area or age (table 1). The Mann–Whitney U test also indicated no significant relationship between income and delay (table 1).

In terms of the interval of delay and demographic characteristics, a Kruskal–Wallis test indicated that women with a lower educational level delayed significantly longer than women with a higher educational level (table 2). A Mann–Whitney U test found that rural or remote women waited significantly longer before seeking care at the first STI provider than urban women (table 2).

Kruskal–Wallis tests indicated that there were no significant differences in interval of delay according to age or income (table 2).

KAP of STIs and delay behaviour

Relationships were examined between delay behaviour (including whether or not women delayed in seeking care, and the interval of delay) and knowledge of STIs, knowledge of available services for STI treatment, and attitudes and practices relating to STIs.

KAP of STIs and delay

Relationships between knowledge of STIs and delay in seeking care were assessed using Mann–Whitney U tests. These indicated that women who did not delay in seeking care (n = 8) knew significantly more correct STI transmission routes than those who delayed in seeking care (n = 35). The difference in the median number of correct STI transmission routes reported by these two groups was 3.5 and 2, respectively (p = 0.042). There were no significant relationships between delay and knowledge of STI names (p = 0.272), knowledge of STI symptoms (p = 0.150) or knowledge of STI services (p = 0.159).

The relationship between attitudes to STIs and delay in seeking care was assessed using Mann–Whitney U test. Those who delayed in seeking care had a median attitude score of 14.0, compared with a median of 15.5 for those who did not delay, but this was not significantly different (p = 0.171).

Of the 35 women who delayed in seeking care, 28 (80%) reported having had sex while having symptoms. In contrast, only 3 (38%) of the 8 women who did not delay reported having had sex while having symptoms. Fisher's exact test indicated a significant relationship between having sex while having symptoms and delay in seeking care (p = 0.028).

KAP of STIs and interval of delay

In order to investigate the relationship between KAPs and the interval of delay, women were divided into three groups (following Larsen *et al*[13]) based on knowledge of STI names (don't know any, know 1–2, know more than 2), knowledge of STI transmission routes (don't know any, know 1–2, know more than 2), knowledge of STI signs (don't know any, know 1–2, know more than 2), knowledge of qualified STI services (don't know any, know 1–2, know more than 2) and attitudes relating to STIs (negative attitudes, neutral attitudes, positive attitudes). Kruskal–Wallis tests indicated that there were no significant relationships between the interval of delay and knowledge of STI names (p = 0.634), knowledge of STI routes (p = 0.555), knowledge of STI signs (p = 0.987) or knowledge of STI services (p = 0.173). There was also no significant relationship between interval of delay and attitudes (p = 0.874).

A comparison of the median delay interval (using Mann–Whitney U test) indicated that women who had sex while having symptoms (n = 31) waited significantly longer before first seeking care than women who did not have sex while having symptoms (n = 12). The difference was 40 versus 7 days (p = 0).

DISCUSSION

In this study, among those women who could report time from the onset of symptoms to first seeking care, over 80% waited for ⩾7 days before first seeking care for STIs. Compared with other studies conducted in other countries,[6–10] this proportion of delay was much higher. In the only two relevant studies in Vietnam conducted by Go *et al*[5] and Nguyen *et al*,[14] the proportion of delay in terms of time from onset of symptoms until first seeking care was not considered, and hence data on the delay behaviour of the present study are not comparable with those of these two studies.

Women with a lower educational background delayed in seeking care at the first STI provider significantly longer than women with higher education, and urban women sought care significantly earlier than women from rural or remote areas. This supports the finding by Leenaars *et al*.[8] However, contrary to the finding of Fortenberry,[7] the present study did not find an association between delay and income.

Table 1 Demographic differences in delay in seeking care

Factor	Time from symptom onset to the first STI provider visit		p Value
	<7 days, n (%)*	⩾7 days, n (%)	
Age (years)			0.780 (Fisher's exact test)
18–24	4 (50)	12 (34)	
25–34	3 (38)	15 (43)	
⩾35	1 (13)	8 (23)	
Education			0.383 (Fisher's exact test)
Tertiary	3 (38)	7 (20)	
Secondary to college	5 (63)	22 (63)	
Primary or less	0 (0)	6 (17)	
Living area			0.189 (Fisher's exact test)
Rural or remote	4 (50)	27 (77)	
Urban	4 (50)	8 (23)	
Income	Median income = 850 000 VND	Median income = 500 000 VND	0.272 (Mann–Whitney U test)

VND, Vietnam dong.
*Some columns do not add up to 100 due to rounding.

Table 2 Demographic differences in interval of delay

Patients' characteristics	n	Median number of days*	p Value
Education			
Primary or less	6	75.0	0.030 (Kruskal–Wallis test)
Secondary to college	27	30.0	
Tertiary	10	21.0	
Living area			
Rural or remote	31	30	0.024 (Mann–Whitney U test)
Urban	12	17.5	
Age* (years)			
18–24	16	47.7	0.370 (Kruskal–Wallis test)
24–34	18	30.0	
⩾35	9	30.0	
Income* (VND)			
⩽350 000	9	60.0	0.196 (Kruskal–Wallis test)
351 000–1 000 000	27	30.0	
>1 000 000	7	30.0	

*Median of number of days from the onset of symptoms until going to the first STI provider (days).
VND, Vietnam dong.

This study also found that women who did not delay in seeking care at the first STI provider had significantly better knowledge of STI transmission than women who delayed in seeking care. This supports the findings by Meyer-Weitz *et al*[9 10] and by Fortenberry.[7] Furthermore, supporting the finding of Moses *et al*,[11] women who had sex while having symptoms were more likely to delay seeking care, and waited significantly longer before first seeking care, than women who did not have sex while having symptoms. However, it should be noted that a longer delay period after recognition of symptoms might increase the chance of continued sex, by providing greater time in which this could occur.

This study provides important data in a very under-researched area in Vietnam. However, a number of aspects of the study should be noted. Only those patients who sought care at the NIDV were included; hence, the study excluded patients who were infected (irrespective of whether they had or did not have symptoms) but did not seek care at all or sought care at places other than the NIDV.

Although non-probability sampling was the most appropriate method to use, given the sensitive nature of this study, this method may lead to sample bias, as such a method may not accurately reflect all women with STIs attending the NIDV. Furthermore, the small sample size of this study could partly limit the power of the tests of significance, and hence limit the possibility of finding significant relationships between studied factors. In addition, the proportion of delay found in this study was drawn only from those 43 women who could report the time from onset of symptoms until seeking care at the first STI provider. This also limits the generalisability of the findings and the ability to detect significant relationships.

Finally, this study was based on the self-reported information from women who, due to the cultural and gender barriers, may not have been entirely open about their sexual lives and may have provided socially desirable answers.

In light of the issues highlighted above, the study findings provide only preliminary information on healthcare-seeking behaviour among women with STIs in a treatment centre. However, acknowledging this, there are a number of potential implications for delay behaviour interventions. Firstly, to facilitate early healthcare-seeking behaviour for STIs, education campaigns should be developed for the general public about early recognition of STIs and the benefits of prompt care-seeking. Secondly, women with less advantaged demographic backgrounds, such as women with low educational level or those from rural or remote areas, could be specifically targeted, as they were more likely to delay in seeking healthcare and to delay longer than those with more advantaged demographic backgrounds. Thirdly, this study found that women who engaged in sex while having symptoms were more likely to delay in seeking care and delayed significantly longer than those who did not engage in sex while having symptoms. It is therefore suggested that early healthcare seeking for STIs could be facilitated through examining women's sexual behaviour, and also the behaviour of men, who in some cases may have considerable influence on women's sexual behaviour.

Although this study found no relationship between delay behaviour and attitudes to STIs, the stigma around STIs may still provide a barrier to timely healthcare seeking. For example, on one item of the attitudes scale, most women in this study reported feeling ashamed of their STIs in front of their acquaintances. It is recommended that confidential services be provided at all public and private clinics to ensure privacy and reduce women's fear of shame when attending such clinics for their STI treatment. In addition, it is important that the general population should be made aware of the basic issues relating to STIs, in order to have a tolerant view towards people with STIs and to not discriminate against them.

In conclusion, given that research about women's healthcare-seeking behaviour for STIs in Vietnam is still limited, this study could contribute to facilitating early healthcare-seeking behaviour for STIs among Vietnamese women. However, some potentially important aspects of knowledge, such as the influence of cultural and gender factors on women's delay in seeking care for STIs or to what extent problems existing in the STI care services affect women's healthcare-seeking behaviour, have still not been studied systematically. This poses challenges as well as opportunities for further investigation in this field.

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CONTRIBUTORS

HTTD was the principal researcher who designed the study, undertook the data collection and analysis, and was responsible for the overall writing and management of contributions to the paper. AZ was the principal supervisor for the study who contributed to the design of the study, the statistical analysis, and the writing and editing of the paper; GH was the co-supervisor of the study who contributed to the study design and provided specialist input into the paper.

Authors' affiliations

Hien Thi Thu Do, National Institute of Dermatology and Venereology, Ha noi, Vietnam
Anna Ziersch, Department of Public Health, Flinders University of South Australia, Adelaide, South Australia, Australia
Gavin Hart, Royal Adelaide Hospital, Adelaide, South Australia, Australia

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REFERENCES

1 **Periago RM**, Fescina R, Pardo RP. Emerging infectious diseases [online] 2004 [cited 2005 March 4]. http://findarticles.com/p/articles/mi_m0GVK/is_11_10/ai_n7577420 (accessed 17 Mar 2007).
2 **WPRO**. Consensus Report on STI, HIV and AIDS Epidemiology Viet Nam [online] 2000 [cited 2005 March 13]. http://www.wpro.who.int/NR/rdonlyres/

5E7E8481-C4OC-457F-BFBD-FC1D4F958ED/O/consensus_Report_VTN_2000.pdf (accessed 6 April 2007).
3 **WPRO**. Status and trends of STI, HIV/AIDS in Western Pacific [online] 1999 [cited 2005 March 13]. http://www.wpro.who.int/NR/rdonlyres/72F8FAEO-9F6A-4F5A-86DE-7363CCCEFCA3/O/status_and_Trends_of_STI_HIV_AIDS.pdf (accessed on 6 April 2007).
4 **O'Farrell N**. STIs in Vietnam_community action for preventing HIV/AIDS_JFPR 9006 [online] 2002 [cited 2005 March 13]. http://www.jfpr-hiv.org/STIsinVietnam.pdf (accessed on 17 March 2007).
5 **Go FV**, Vu MQ, Chung A, *et al*. Barriers to reproductive tract infection (RTI) care among Vietnamese women: implications for RTI control programs. *Sex Transm Dis* 2002;**29**:201–6.
6 **Voeten ACMH**, O'hara BH, Kusimba J, *et al*. Gender differences in health care-seeking behavior for sexually transmitted diseases: a population-based study in Nairobi, Kenya. *Sex Transm Dis* 2004;**31**:265–72.
7 **Fortenberry JD**. Health care seeking behaviours related to sexually transmitted diseases among adolescents. *Am J Public Health* 1997;**87**:417–20.
8 **Leenaars PEM**, Rombouts R, Kok G. Seeking medical care for a sexually transmitted disease: determinants of delay behaviour. *Psychol Health* 1993;**8**:17–32.
9 **Meyer-Weitz A**, Reddy P, Van den Borne WH, *et al*. The determinants of health care seeking behaviour of adolescents attending STD clinics in South Africa. *J Adolesc* 2000;**23**:741–52.
10 **Meyer-Weitz A**, Reddy P, Van-den-Borne WH, *et al*. Health care seeking behaviour of patients with sexually transmitted diseases: determinants of delay behaviour. *Patient Educ Couns* 2000;**41**:263–74.
11 **Moses S**, Ngugi EN, Bradley JR, *et al*. Health care seeking behaviour related to the transmission of sexually transmitted disease in Kenya. *Am J Public Health* 1994;**84**:1947–51.
12 **Yarber LW**, Toraby RM, Veenker HC. STD attitude scale. In: Davis CM, Yarber WL, Bauserman R, Schreer G, Davis SL, eds. *Handbook of sexually-related measures*. London: Sage Publications, 1998.
13 **Larsen MM**, Casey ES, Sartie TM, *et al*. Changes in HIV/AIDS/STI knowledge, attitudes and practices among commercial sex workers and military forces in Port Loko, Sierra Leone. *Disasters* 2004;**28**:239–54.
14 **Nguyen DH**, Diep XT, Pham MP, *et al*. The knowledge, attitude, practice and prevalence of reproductive tract infections among women 15–49 in Vietnam. In: PK Kohl SJ, eds. *International Congress of Sexually Transmitted Infections*. Berlin: Monduzzi Editore, 2001:121–6.